

2. SULA BASSANA.

Sula bassana Grant, Cat. B. xxvi. p. 425.

Beirut, Syria. 1 March, 1894.

The occurrence of the Gannet at the eastern end of the Mediterranean Sea is of interest. The nearest locality from which it has been recorded hitherto is the north-west coast of Africa.

A single example was obtained by Prof. A. E. Day, of the American College at Beirut. It is an adult female in fine plumage.

3. PUFFINUS KUHLI.

Puffinus kuhli Salvin, Cat. B. xxv. p. 375.

♀. Beirut, Syria. 11 April, 1878.

♀. „ „ 22 May, 1878.

The Mediterranean Shearwater is not recorded by Tristram in his 'Fauna of Palestine,' but I find that he mentions it in his notes on the Ornithology of Palestine in the 'Ibis' of 1868 (p. 331), under the name of *Puffinus barolii*.

4. PORZANA BAILLONI.

Porzana bailloni Sharpe, Cat. B. xxiii. p. 103.

Karyatein, Syrian desert. 3 March, 1905.

Tristram did not obtain this bird in Syria or Palestine, but suspected its occurrence.

XXII.—*On a Collection of Birds from the South Coast of the Caspian Sea and the Elburz Mountains.* By HARRY F. WITHERBY, F.Z.S., M.B.O.U. *With Field-Notes* by R. B. WOOSNAM, M.B.O.U.

THIS second collection of birds made by Mr. R. B. Woosnam in Persia has been presented, like the first (see 'Ibis,' 1907, p. 74 *et seqq.*), to the British Museum by Colonel A. C. Bailward, with whom Mr. Woosnam travelled. I am again much indebted to the authorities of the British Museum for allowing me to work out this collection—a task which has interested me greatly.

The journey undertaken by Col. Bailward and Mr. Woosnam on this occasion was made between February 12th and May 20th, 1907. They proceeded along the south coast of the Caspian Sea from Resht to Bundar Gez on Asterabad Bay, thus passing through the provinces of Gilan and Mazandaran. From Bundar Gez they struck south across the Elburz Mountains to Tehran, passing Mount Demavend. From Tehran they proceeded along the highroad back to Resht, down the great valley of the Sufid Rud.

The collection is especially interesting as shewing a very sharp distinction between the Avifauna of the Persian Plateau and that of the Caspian Provinces. Although this distinction was clearly pointed out by Blanford (in his 'Eastern Persia'), it is, nevertheless, still more clearly demonstrated by a deeper study of nearly allied races. Taking the more sedentary birds, we find the following closely allied forms divided by the Elburz Mountains :—

CASPIAN REGION.

Syrnium aluco aluco.
Dendrocopus major pælzami.
Dendrocopus minor danfordi.
Gecinus viridis viridis.
Cinclus cinclus caucasicus.
Sitta europæa cæsia.
Sitta neumayeri neumayeri.
Parus major major.
Parus lugubris hyrcanus.

PERSIAN PLATEAU.

Syrnium aluco sancti-incolai.
Dendrocopus major syriacus.
Dendrocopus minor morgani.
Gecinus viridis innominatus.
Cinclus cinclus persicus.
Sitta europæa persica.
Sitta neumayeri tshitscherini.
Parus major blanfordi.
Parus lugubris dubius.

A number of European birds also migrate to the Caspian provinces in winter, and do not seem to penetrate the mountain-barrier, while the generally more European character of the birds of this region as compared to those of the Plateau is very marked.

As to where the dividing-line lies, Mr. Woosnam remarks : "So soon as the northern afforested slopes of the Elburz range are passed we come quite suddenly into the dry barren rocky country typical of the central and southern plateau of Persia. Immediately all the plateau birds so familiar in the Zagros Mountains and elsewhere appear."

This is interesting confirmation of Blanford's definition of the Caspian region as ending with the forest on the slopes of the Elburz Mountains. It would thus seem that climatic conditions and consequent changes in environment are responsible for the division rather than the actual mountain-barrier.

In the following pages I have referred to Blanford's 'Eastern Persia,' vol. ii. as B. for the sake of brevity, and in the same way my articles in the 'Ibis' for 1903 and 1907 are referred to as W. 1903 and W. 1907. An asterisk prefixed to either of these initials indicates that no specimen of the bird in question was obtained.

FALCO ÆSALON Tunstall. [*B. 105.]

♂. March 22, south coast, Caspian Sea.

This specimen is very pale and has very few stripes on the breast.

The Merlin does not appear to have been recorded hitherto from Persia. It is probably only a winter visitor to the northern parts of that country.

ACCIPITER NISUS (L.). [B. 109. W. 1907, p. 77.]

♀. Feb. 16, S. coast, Caspian Sea.

"A few Sparrow-Hawks were seen in the forests of Mazandaran, but this was not at all a common bird."—R. B. W.

SCOPS GIU (Scop.). [B. 115. W. 1903, p. 560.]

Three in May from the Elburz Mts. (near Tehran, alt. 7000 ft.).

"Not seen on the north side of the mountains."—R. B. W.

SYRNIUM ALUCO ALUCO (L.). [W. 1903, p. 560.]

♂. April 5, S. coast, Caspian Sea.

"The only specimen seen; we never heard them at night."—R. B. W.

This is a dark brown example with scarcely any rufous, and is much striated on the breast and particularly dark on the nape and mantle. It is thus very different from the pale and faintly marked Tawny Owl which I obtained in

S.W. Persia, and which has been separated by M. Zarudny under the name of *Syrnium sancti-nicolai* (Orn. Monatsb. 1905, p. 49).

The Tawny Owl seems a rare bird in Persia.

ASIO ACCIPITRINUS (Pall.). [*B. 116. *W. 1903, p. 560; 1907, p. 77.]

♀. March 12, S. coast, Caspian Sea.

“Quite common on the low ground near the coast; we often put up five or six at one spot.”—R. B. W.

ALCEDO ISPIDA BENGALENSIS (Tacz.).

♂. Feb. 23, S. coast, Caspian Sea.

“Not uncommon in Mazandaran and to be seen in the gardens of Tehran; the only species of Kingfisher observed.”—R. B. W.

This specimen, owing to its small size (wing 73 mm.), must be referred to this form, although it is curious that according to Blanford the Kingfisher of the Persian Plateau appears to be of the typical form.

CORACIAS GARRULUS L. [B. 125. W. 1903, p. 559; 1907, p. 78.]

A male from the Elburz Mts. (near Demavend, alt. 7500 ft.), on April 28.

“Plentiful round Tehran; we were probably too early for them on the north side of the mountains.”—R. B. W.

PICUS MARTIUS L.

♀. Feb. 27, S. coast, Caspian Sea.

“A single pair was seen, but afterwards we several times heard a note which we thought might have been that of this species.”—R. B. W.

The Black Woodpecker does not appear to have been recorded previously from Persia, although its presence in the Caspian Provinces is not unexpected.

DENDROCOPUS MAJOR PÆLZAMI (Bogd.).

Four from the S. coast of the Caspian Sea in February.

“Very plentiful throughout the wooded country both on the plain and in the hills.”—R. B. W.

DENDROCOPUS MAJOR SYRIACUS (H. & E.). [B. 130. W. 1903, p. 554; 1907, p. 79.]

A male from Tehran in April.

In Persia this form appears to be confined to the Plateau, and is replaced in the Caspian forests by the dark-breasted *D. m. paelzami*. Mr. Woosnam says (*in litt.*) that a Great Spotted Woodpecker was to be found high up in the mountains, but as he obtained no specimens it is impossible to say exactly where is the dividing-line of the two forms.

DENDROCOPUS MINOR DANFORDI (Harg.).

♂. Feb. 23; ♀. March 29, S. coast, Caspian Sea.

“The only two seen, but probably not rare in the Mazandaran forests.”—R. B. W.

These agree well with the type and are unlike the Lesser Spotted Woodpecker of S.W. Persia (*cf.* ‘Ibis,’ 1903, p. 555), which has been separated by M. Zarudny and Baron Loudon under the name *Dendrocopus minor morgani* (Ornith. Jahrb. xv. 1904, p. 227).

GECCINUS VIRIDIS VIRIDIS (L.).

Four from the S. coast of the Caspian Sea in February and March.

“Many were to be seen and they were still more often to be heard in the forest, but they were not so numerous as the Great Spotted Woodpecker, and in the mountains only a few were noticed.”—R. B. W.

These are typical examples of the Green Woodpecker and are dark and richly coloured compared to the pale *G. v. innominatus* of the Plateau (*cf.* ‘Ibis,’ 1907, p. 79).

LANIUS EXCUBITOR HOMEYERI Cab.

Hartert, Vög. pal. Fauna, p. 420.

♂. March 30, S. coast, Caspian Sea.

This is a pale form of *L. excubitor*.

The Great Grey Shrikes which I obtained in S.W. Persia (*cf.* ‘Ibis,’ 1903, p. 533) have been determined by Dr. Hartert as follows:—♂ Kazerun, March 31, and ♂ Konar Takhta, March 28, as *L. e. aucheri*: ♂ Bushire, March 22, and ♂ Nudan, April 16, as *L. e. pallidirostris*.

LANIUS MINOR Gm. [B. 137. W. 1903, p. 534 ; 1907, p. 80.]

♀. May 6, Elburz Mts. (alt. 6500 ft.).

♂. May 18, S. coast, Caspian Sea (Resht).

LANIUS COLLURIO L. [*B. 137. W. 1903, p. 534 ; 1907, p. 80.]

♀. May 6, Elburz Mts. (near Tehran, alt. 6000 ft.).

♀. May 15, Elburz Mts. (near Resht, alt. 500 ft.).

♂. May 20, S. coast, Caspian Sea (Resht).

“On our return to Resht, Red-backed Shrikes were often met with among the patches of bush and scrub near the coast. A few were seen at Tehran.”—R. B. W.

The Red-backed Shrike is rare in Southern Persia.

MUSCICAPA ATRICAPILLA L. [B. 143. W. 1903, p. 552 ; 1907, p. 81.]

♂ ♀. April 15, Tehran (alt. 4600 ft.).

“A single pair in a garden, where they were evidently going to breed. None were seen on the north side of the mountains.”—R. B. W.

These birds perhaps belong to the form *M. a. semitorquata*, but the skins are indifferent and they bear none of the characters of *M. a. semitorquata* distinctly. The outer pair of tail-feathers of the male have the outer webs white, but there is only a very narrow edging of white on their inner webs. The second pair are white on the outer webs except for half an inch at the tip. The white “collar” does not appear to come further round the back of the neck than in many examples of typical *M. atricapilla*, but the white spot on the primaries is rather distinct.

The example obtained by me at Bushire, which I called *M. atricapilla* (‘Ibis,’ 1903, p. 552), is an undoubted specimen of *M. a. semitorquata*.

MUSCICAPA PARVA (Bechst.). [B. 144.]

♀. May 16, S. coast, Caspian Sea (Resht).

“The only one seen ; shot in a dense part of the forest.”—R. B. W.

PRATINCOLA RUBICOLA MAURA (Pall.). [B. 145. W. 1903, p. 547; 1907, p. 81.]

♂. April 20, Elburz Mts. (near Demavend, alt. 7500 ft.).

PRATINCOLA RUBETRA (L.). [*B. 146.]

♀. May 20, S. coast, Caspian Sea (Resht).

This specimen appears to me to be of the typical form.

P. r. noskæ Tschusi (Orn. Jahrb. xiii. 1902, p. 234) from the Caucasus is perhaps rather a doubtful form.

In Persia the Whinchat seems to be confined to the northern provinces.

SAXICOLA CENANTHE CENANTHE (L.). [B. 146. W. 1903, p. 546; 1907, p. 81.]

Four from the Elburz Mts. in April, and one from the S. coast of the Caspian in May.

All the Common Wheatears from Persia that I have examined are of the typical form.

SAXICOLA ISABELLINA Cretzschm. [B. 147. W. 1903, p. 546; 1907, p. 81.]

Two males. April 14, Elburz Mts. (south side, alt. 5000 ft.).

SAXICOLA OCCIDENTALIS MELANOLEUCA (Güld.). [B. 150. W. 1903, p. 545; 1907, p. 82.]

Six specimens in April and May from the Elburz Mountains, both on the south side and also near Resht (alt. 400-5000 ft.).

Although Blanford considered this a rare Wheatear in Persia it is evident from my own and Mr. Woosnam's former collection that it is fairly evenly distributed over the west and north of the country.

SAXICOLA CHRYSOPYGIA (De Fil.). [B. 151. W. 1903, p. 544; 1907, p. 83.]

Four males from the north side of the Elburz Mts. (alt. 3000-8000 ft.) in April, and three specimens from the south side (alt. 5500-6000 ft.) in April and May.

"This Wheatear was met with so soon as we passed through the afforested slopes of the north side of the Elburz

Mountains. It was a common bird and was found so low as 3000 feet."—R. B. W.

It is interesting to find this Wheatear in the north of Persia at lower altitudes than it seems to affect in the south, where Mr. Woosnam and I never met with it below 9000 feet, and then but rarely.

MONTICOLA CYANUS (L.). [B. 155. W. 1903, p. 550; 1907, p. 83.]

Threes from the Elburz Mts. (north side, alt. 5000–8000 ft.) in April.

MONTICOLA SAXATILIS (L.). [B. 156. W. 1903, p. 550; 1907, p. 83.]

One from the Elburz Mts. (near Demavend, alt. 8000 ft.) on April 20.

TURDUS MERULA ATERRIMA Mad.

♂ ♀. March 29 & 31, S. coast, Caspian Sea.

♀ ♀, April 22, ♂ ♀, May 4, Elburz Mts. (north side).

"Not uncommon on the afforested parts of the mountains and lower foot-hills; most plentiful in the oak woods at about 4000 feet."—R. B. W.

I have submitted the specimens to Mr. C. E. Hellmayr, who informs me that he considers them to belong to this form, which was described from the Caucasus. The females are more rufous on the upper breast and the males are blacker than in *T. m. syriacus*, the form found in South-west Persia. The wings measure:—♀, 119–127 mm.; ♂, 127 mm.

TURDUS MUSICUS MUSICUS L. [B. 156. W. 1903, p. 551; 1907, p. 83.]

♂, March 1, ♂, March 6, S. coast, Caspian Sea.

"Song-Thrushes were common all the way along the coast, especially in the pomegranate jungles, where they were feeding upon a large snail which infested the bushes. We did not see any Song-Thrushes in the mountains."—R. B. W.

These examples are not quite so pale as those from Southern Persia.

TURDUS VISCIVORUS L. [*B. 157.]

♀. Feb. 24, S. coast, Caspian Sea.

“Mistle-Thrushes were seen here and there all the way from Resht to Bundar Gez, and one specimen was shot in a garden at Tehran. They were not met with in the mountains.”—R. B. W.

TURDUS ILIACUS L. [*B. 157.]

♂. March 15, S. coast, Caspian Sea.

“A few small restless flocks were seen at Meshed-i-Ser, but none elsewhere.”—R. B. W.

TURDUS PILARIS L.

♀. March 12, S. coast, Caspian Sea.

“Two or three Fieldfares were seen at Meshed-i-Ser on the same ground as the Redwings.”—R. B. W.

The Fieldfare does not appear to have been previously recorded from Persia.

TURDUS ATRIGULARIS Temm. [B. 158.]

♂. March 30, S. coast, Caspian Sea.

♀. April 15, Tehran (alt. 4600 ft.).

From Mr. Woosnam's notes this species appears to be very rare. Dr. Blanford found it common in winter in Baluchistan, while it was met with by Mr. Cumming at Bushire in February and March (*cf.* ‘Ibis,’ 1886, p. 495).

ERITHACUS RUBECULA HYRCANUS Blanf. [B. 160. W. 1907, p. 84.]

♂♂. March 27 & 28, S. coast, Caspian Sea.

“A few Robins were seen all along the afforested parts of the Caspian coast.”—R. B. W.

Although Mr. Woosnam met with this Robin in the south of Persia in some numbers in March, yet it is found at the same time of year far to the north in its breeding-grounds, which is rather puzzling. Dr. Blanford considered it a North Persian bird. Dr. Bowdler Sharpe recorded it from Fao in October and November.

RUTICILLA PHENICURUS (L.). [B. 163. W. 1903, p. 547; 1907, p. 84.].

♀. April 15, Tehran. ♂. April 28, Elburz Mts. (Demavend, alt. 6000 ft.).

RUTICILLA RUFIVENTRIS (Vieill.). [B. 163. W. 1903, p. 548.].

♂. April 11, Elburz Mts. (north side, alt. 8000 ft.).

RUTICILLA TITYS (Scop.). [B. 166. W. 1907, p. 85.]

Three specimens, April 10 & 12, Elburz Mts. (north side, alt. 5000 ft.).

“Not a common bird, but seen also among the deep snow at 9000 feet, where it was apparently quite happy.”—R. B. W.

PHILOMELA LUSCINIA LUSCINIA (L.).

♂. May 6, Elburz Mts. (near Tehran, alt. 7000 ft.).

This is undoubtedly an example of the western form of Nightingale, and its occurrence so far south-east, especially in May, is most remarkable. Dr. Radde (*Ornis Caucasia*, p. 246, footnote) has stated his belief that its reported occurrence in the Caspian region was a mistake.

SYLVIA ORPHEA JERDONI Blyth. [B. 172. W. 1903, p. 541; 1907, p. 86.]

♂. May 15, Elburz Mts. (near Resht, alt. 500 ft.).

The eastern race of the Orphean Warbler is by no means a well-marked form. In this specimen the bill is no longer than that of the typical form; but perhaps the best distinction is in the colour of the flanks, which are never pinkish buff as in the Western European bird.

SYLVIA ATRICAPILLA (L.). [*B. 174. W. 1903, p. 540; 1907, p. 86.]

♀ ♂. March 4 & 11, S. coast, Caspian Sea.

♂ ♀. April 20, Elburz Mts. (near Tehran, alt. 7500 ft.).

♂. May 15, Elburz Mts. (near Resht, alt. 500 ft.).

SYLVIA COMMUNIS ICTEROPS Ménétries (*cf.* Hartert, Vög. pal. F. p. 587).

Sylvia cinerea Bechst. [B. 174. W. 1903, p. 541; 1907, p. 86.]

♂ ♂. May 1, }
♀. May 15, } Elburz Mts. (north side, alt. 500-7000 ft.).

The males are much greyer and not so brown on the upper side as those of the typical Whitethroats, while the edges to the secondaries and greater wing-coverts are of a paler, less rufous brown; the female is pale brown on the upper side. The measurements of both sexes are larger. The two specimens procured by me in Fars also agree with this race.

SYLVIA MYSTACEA Ménétr. [W. 1903, p. 539; 1907, p. 86.]

Sylvia rubescens B. 177.

♂. March 18, S. coast, Caspian Sea.

♂. April 6, Elburz Mts. (north side, alt. 2000 ft.).

“Seen for the first time on March 18th, and found again quite numerous among the oak-scrub valleys at 4000 feet on the north side of the mountains.”—R. B. W.

PHYLLOSCOPUS COLLYBITA TRISTIS Blyth. [B. 180.]

♂ ♀. March 1, S. coast, Caspian Sea.

♀. April 18, Elburz Mts. (near Tehran, alt. 6500 ft.).

Blanford obtained the Siberian Chiffchaff only in Baluchistan, and it does not appear to have been recorded before from North Persia. Mr. Woosnam notes that Chiffchaffs were first seen “at Resht in the first week of February, when there were at least two feet of snow on the ground,” and afterwards throughout the whole journey.

It would seem, therefore, that the bird spends the winter in North Persia.

PHYLLOSCOPUS TROCHILUS TROCHILUS (L.). [B. 180. W. 1903, p. 539; 1907, p. 87.]

♂. May 4, Elburz Mts. (alt. 7000 ft.).

♂. May 16, S. coast, Caspian Sea.

HYPOLAIS PALLIDA (H. & E.). [B. 187. W. 1903, p. 541; 1907, p. 88.]

♂. May 6, Elburz Mts. (near Tehran, alt. 6500 ft.).

ACROCEPHALUS ARUNDINACEUS ZARUDNYI Hartert, Bull. B. O. C. xxi. p. 26.

♂ (wing 96 mm.); ♂ (wing 98 mm.); ♂ (wing 99 mm.); ♀ (wing 96 mm.); May 20, S. coast, Caspian Sea.

“Very common in May in the dense reed-beds.”—R. B. W.

These are undoubtedly breeding birds. Compared to the typical western form they are paler and less rufous on the upper and less buff on the under side. The bird obtained by Mr. Woosnam at Ahwaz (*cf.* *Ibis*, 1907, p. 88) in Persian Mesopotamia is, however, of the western form.

ACROCEPHALUS PALUSTRIS (Bechst.). [B. 197. W. 1903, p. 543; 1907, p. 88.]

♂. May 15, Elburz Mts. (near Resht, alt. 500 ft.).

ACROCEPHALUS SCHÆNOBÆNUS (L.). [B. 199.]

Four specimens from the S. coast of the Caspian Sea, from May 16 to 20.

Blanford quotes Ménétries as the only authority for the occurrence of the Sedge-Warbler in Persia. Mr. Woosnam has no notes as to whether this and the preceding species were likely to be breeding. Mr. Cumming thought that the bird was a resident at Fao (*cf.* *Ibis*, 1886, p. 481).

CETTIA CETTI (Marm.). [B. 200. W. 1903, p. 536; 1907, p. 88.]

♂. March 18, S. coast, Caspian Sea.

♂. May 4, Elburz Mts. (north side, alt. 8000 ft.).

“I heard Cetti’s Warbler once or twice about the middle of March among swampy thorn-thickets and reeds, and often high up among the mountains, where it was always in the course of some stream.”—R. B. W.

The specimen of March 18 is moulting its contour feathers but not the quill feathers of the wings or tail.

ACCENTOR OCULARIS Radde. [W. 1907, p. 88.]

Accentor jerdoni (nec Brooks). [W. 1903, p. 544.]

♂ ♂ ♀. April 20, } Elburz Mts. near Demavend (alt.

♂ ♂. May 4, } 8000-9000 ft.).

♂ ♂. April 30, Elburz Mts. (north side, alt. 8000 ft.).

“Quite common around the lower slopes of Mt. Demavend and seen so low as 8000 ft.”—R. B. W.

In the female the pectoral band is not so bright as in the male, and the crown of the head is not nearly so dark.

ACCENTOR MODULARIS BLANFORDI Zar. [B. 202.]

♀. March 6, S. coast, Caspian Sea.

“Only met with in the low country or the north side of the mountains.”—R. B. W.

I think there is little doubt that this specimen belongs to the form described from the country to the south-west of Ispahan by M. Zarudny (Orn. Monatsb. xii. p. 164), and from the same district by Blanford under the name of *A. rubidus*, Temm. & Schl., var. (‘Eastern Persia,’ vol. ii. p. 202). The wing-formula in this specimen is similar to that of the British Hedge-Sparrow (*A. m. occidentalis*), the 2nd primary being very slightly longer than the 7th and considerably shorter than the 6th. The whole of the upper parts of the bird are paler, and the head and neck are greyer than in the typical form; the dark portions of the feathers of the mantle are smaller and distinctly less dark, while the rump and upper tail-coverts are more greyish-brown and not so rufous; the greater and median wing-coverts are tipped with white, not buff. The specimen is, however, much worn.

CINCLUS CINCLUS CAUCASICUS Mad. [W. 1907, p. 90.]

♀ ♂. April 22 & 24, Elburz Mts. (north side, alt. 3000 ft.).

This is the form of the Dipper found in Asia Minor and the Caucasus.

“Dippers were seen frequently on the lower streams in the Elburz up to about seven or eight thousand feet, but, as usual, they were almost impossible to pick up when shot.”—R. B. W.

COTILE RIPARIA (L.). [B. 216. W. 1903, p. 553; 1907, p. 90.]

♂ ♀. May 20, S. coast, Caspian Sea.

COTILE RUPESTRIS (Scop.). [B. 216. W. 1903, p. 553; 1907, p. 90.]

♀. April 20, Elburz Mts. (near Demavend, alt. 7000 ft.).

TROGLODYTES PARVULUS Koch. [B. 222.]

♂. March 2, S. coast, Caspian Sea.

"Seen throughout the forest country, on the plains, and on the mountains."—R. B. W.

I cannot distinguish any difference between this specimen and typical examples. The specimen which Mr. Woosnam obtained at Sumela in 1906 (*cf.* Ibis, 1907, p. 92) is worn and no doubt bleached, and it is impossible to judge from an examination of these two skins whether or not *T. p. hyrcanus* Zar. & Loud. (Orn. Monatsb. 1905, p. 106), which is supposed to inhabit the Caspian region, is a valid form.

SITTA EUROPÆA CÆSIA Wolf. [B. 223.]

♂ ♂. March 28 & 29, S. coast, Caspian Sea.

"No Nuthatches were met with in the swampy alder-forests along the coast, but several were seen in the dry beech and hornbeam cover on the foot-hills, and they are probably numerous all along the afforested north side of the Elburz."—R. B. W.

These Nuthatches are very different from the pale form of the Plateau (*S. e. persica*), and they appear to me to resemble in every way typical *S. casia*. They have neither the short bill nor the white eye-spot of *S. e. caucasica*, while in *S. rubiginosa* Tsch. & Zar. (Orn. Jahrb. 1905, p. 140) the under side is stated to be brighter than that of *S. casia*, but this is not so in these specimens nor is the bill longer. The character of the length of the first primary given for *S. rubiginosa* is quite useless, as this varies greatly in individuals.

SITTA NEUMAYERI NEUMAYERI Michah. [W. 1907, p. 91.]

♂ ♂. April 8, } Elburz Mts. (north side, alt. 5000–
♂. May 5, } 7000 ft.).

These are typical examples.

PARUS MAJOR MAJOR L. [W. 1907, p. 93.]

Three males and two females, March 4–6, S. coast, Caspian Sea.

“Plentiful throughout the afforested region.”—R. B. W.

I cannot distinguish between these specimens and a good series of typical Great Tits. All the characters pointed out by M. Zarudny and Baron Loudon as distinguishing their *P. m. caspius* (Orn. Monatsb. 1905, p. 108) are variable when a large series is examined.

PARUS MAJOR BLANFORDI Prazak. [W. 1907, p. 93.]

♀. April 20, near Tehran (alt. 7000 ft.).

This specimen is distinct from those from the Caspian region, and compares well with others from the Plateau. The type of this race was from Tehran.

PARUS ATER PHŒONOTUS Blanford. [B. 228.]

♀ ♀. Feb. 19, }
♀. March 28, } S. coast, Caspian Sea.

♂. April 22, }
♂. May 4, } Elburz Mts. (north side, alt. 4000–7000 ft.).

“Not very common.”—R. B. W.

These specimens compare well with Blanford’s type except that they are rather more greenish and less rich brown on the back, but the type-specimen is in very fresh plumage, and this may account for the slight difference. I do not think that this Tit has been found in South-west Persia since Major St. John obtained those from which the form was described. Is it possible that some mistake was made in the locality and that this race is not found in the south-west of Persia?

PARUS LUGUBRIS HYRCANUS Zar. & Loud. Orn. Monatsb. 1905, p. 76.

♂ ♀. May 1, Elburz Mts. (north side, alt. 7000 ft.).

“Two or three pairs seen in the oak woods.”—R. B. W.

Compared with examples of typical *P. lugubris* these specimens are shorter in the bill and tail. They measure:—tail 53–54 mm. against 60–63 in typical specimens; bill (from nostril to tip) 7 mm. against 9 mm. in typical specimens. The rust-colour of the stomach (*cf.* Orn. Monatsb. 1905, p. 76, & Vög. pal. F. p. 369) is not present in these examples.

PARUS CÆRULEUS CÆRULEUS L. [*B. 231.]

Two males and three females, February and March, S. coast, Caspian Sea.

♂. April 6, Elburz Mts. (north side, alt. 5000 ft.)

“Seen throughout the forests both on the plain and on the hills.”—R. B. W.

Although in some of these specimens the yellow of the under side is rather dull, I think they must certainly be referred to the typical form and not to *P. c. persicus*, which seems confined, like *P. m. blanfordi*, to the Plateau.

ACREDULA CAUDATA TEPHRONOTA Günther. [B. 231. W. 1903, p. 529; 1907, p. 94.]

♀. Feb. 16, }
♂. March 28, } S. coast, Caspian Sea.

“Not uncommon all along the south coast of the Caspian and upon the forest-clad hills on the north side of the Elburz. The remains of a new nest were seen on March 26th.”—R. B. W.

These examples agree exactly with the type of the species.

ANTHOSCOPUS MACRONYX (Severz.).

♀ ♀. March 16, }
♂. May 20, } S. coast, Caspian Sea.

“A few of these little Tits were seen at Ferahabad in a dense reed-bed, where they were very busy among the bottoms of the reeds. I saw them only here and once again in the reeds of the lagoon at Resht.”—R. B. W.

The male is rather small in the wing, measuring 54 mm. as compared to 59 and 57 in specimens from Syr-Darya, 58 in one from Gjaz, and 56 in another from N.W. Turkestan. The females measure 52 and 53 mm. The male is

rather grey on the throat, but I think that this is due to wear. It is curious that this species should occur so far west as the Caspian region, where the birds seem to be generally much like western forms.

REGULUS CRISTATUS CRISTATUS Koch. [W. 1907, p. 94.]

♂. Feb. 24, S. coast, Caspian Sea.

“Only seen on two or three occasions along the coast of the Caspian.”—R. B. W.

The Goldcrest does not appear to have been recorded previously from Persia.

MOTACILLA ALBA L. [B. 232. W. 1903, p. 528; 1907, p. 94.]

♂♂. March 5 & 22, S. coast, Caspian Sea.

These specimens are I think typical *M. alba* and not *M. a. dukhunensis*, but they are in full moult, and the new feathers are very little grown. They have very little white on the wings. It may be noted that the tail-feathers are moulting as well as the contour feathers.

MOTACILLA FLAVA BOREALIS Sund.

Two males, May 18, S. coast, Caspian Sea.

“Flocks of many hundreds of Wagtails and other birds were to be seen at this date on the cow-grass and marshland near the coast at Resht.”—R. B. W.

The bird described by Blanford (p. 233) under *Budytes flavus*, from Ispahan, was, I expect, a specimen of this form.

MOTACILLA CAMPESTRIS Pall.

♂. May 18, S. coast, Caspian Sea (Resht).

MOTACILLA BOARULA BOARULA L. [W. 1903, p. 527; 1907, p. 95.]

♂. April 18, Elburz Mts. (near Tehran).

ANTHUS TRIVIALIS (L.). [B. 235. W. 1903, p. 528; 1907, p. 95.]

Two males, May 1, Elburz Mts. (alt. 7000 ft.).

“Tree-Pipits were not uncommon among the oak-scrub at 7000 feet and were breeding on May 1st.”—R. B. W.

ANTHUS PRATENSIS (L.). [B. 236.]

Three examples, March 1, 15, & 25. S. coast, Caspian Sea.

“A good many were seen in Mazandaran; they were especially numerous on the flat grassy plain around Asterabad Bay.”—R. B. W.

Elsewhere in Persia the Meadow-Pipit seems very rare or absent.

ANTHUS CAMPESTRIS (L.). [B. 237. W. 1903, p. 528; 1907, p. 96.]

Three specimens, April 20, Elburz Mts. (near Tehran, alt. 8000 ft.).

ALAUDA ARVENSIS CINEREA Ehmcke. [B. 239. W. 1903, p. 526; 1907, p. 96.]

Four examples in March, S. coast, Caspian Sea.

♂. April 11, Elburz Mts. (alt. 8000 ft.).

“Not very numerous.”—R. B. W.

GALERIDA CRISTATA MAGNA Hume. [B. 240. W. 1903, p. 525; 1907, p. 96.]

♂ ♀. April 14, Elburz Mts. (south side, alt. 5000 feet).

OTOCORYS ALPESTRIS PENICILLATA (Gould). [B. 240. W. 1903, p. 527; 1907, p. 97.]

♂ ♀. April 11, Elburz Mts. (north side, alt. 8000 ft.).

CALANDRELLA BRACHYDACTYLA (Leisler). [B. 242. W. 1903, p. 525; 1907, p. 97.]

♂. April 18, Elburz Mts. (near Tehran, alt. 5000 ft.).

MELANOCORYPHA CALANDRA CALANDRA (L.).

♂. March 25, S. coast, Caspian Sea.

“Not seen on the low wet country near the coast, but a few were met with on the lowest undulating slopes of the hills, where a little barley was being cultivated.”—R. B.

This specimen agrees well with the typical form and is much greyer than *M. c. psammochroa* (cf. Ibis, 1907, p. 98). Specimens in the British Museum from Bushire and “Persia” also appear to belong to the typical form, which may visit this country on migration.

MELANOCORYPHA BIMACULATA (Ménétr.). [B. 244. W. 1903, p. 526 ; 1907, p. 98.]

♂. April 15, Tehran.

FRINGILLA CŒLEBS L. [B. 247. W. 1907, p. 99.]

♂. Feb. 18, } S. coast, Caspian Sea.
♀. March 4, }

“Chaffinches were extraordinarily numerous at Resht in February and all along the coast, but they became much scarcer towards the east and around Asterabad Bay, and in the forest near Bandar Gez there were very few. They were seen in the forest on the hills up to about 6000 feet. On our return to Resht in May scarcely a Chaffinch was to be met with.”—R. B. W.

FRINGILLA MONTIFRINGILLA L. [*B. 247.]

♀. Feb. 18, }
♀. March 11, } S. coast, Caspian Sea.
♂. March 16, }
♀. March 18, }

“Bramblings were seen in small numbers, but nowhere very numerous, in the more open places along the coast, generally in company with flocks of Chaffinches. They all seemed to have departed north by the time we returned to the coast in May.”—R. B. W.

These are typical examples of the Brambling, the occurrence of which in Persia seems to have been previously uncertain. The birds are no doubt winter migrants to the Caspian region.

LIGURINUS CHLORIS (L.). [*B. 247. W. 1907, p. 99.]

♂ ♀. March 6, } S. coast, Caspian Sea.
♀. March 25, }

♂. May 15, Elburz Mts. (near Resht).

“Very few Greenfinches were seen.”—R. B. W.

These are rather brightly coloured, but they are not so small as *L. chloroticus*, which does not appear to occur in Persia.

CHRYSOMITRIS SPINUS (L.). [B. 247.]

♂. Feb. 13, }
 ♂. Feb. 19, } S. coast, Caspian Sea.

“Siskins were plentiful near Resht in February and were met with for some way along the coast, but became scarce as we went eastwards and were not seen east of Mashed-i-Ser, which was reached on March 3rd.”—R. B. W.

MONTIFRINGILLA ALPICOLA (Pall.). [B. 248. W. 1903, p. 524; 1907, p. 99.]

Two males, April 20, Elburz Mts. (near Demavend, alt. 8600 ft.).

CARDUELIS CARDUELIS.

♂. April 2, S. coast, Caspian Sea.

This bird is remarkably like the specimen obtained by Mr. Woosnam in 1905 at the Diz River in South-west Persia—a bird which puzzled me greatly (*cf.* Ibis, 1907, p. 99).

The measurements of the two birds are practically identical and their coloration is similar. I think that they must both be referred to typical *C. carduelis*, and it must be supposed that they were both migrants from the north.

CARDUELIS CARDUELIS MINOR Zarudny, Orn. Monatsb. xiv. p. 47.

Carduelis elegans major (nec Tacz.), Witherby, Ibis, 1903, p. 521.

♀. March 14, S. coast, Caspian Sea.

Compared with my specimens from South-west Persia, this bird is slightly darker, but it is of the same tone of colour and of the same measurements, and I think that it is undoubtedly of the same form as the plateau bird, but slightly less bleached.

LINOTA CANNABINA FRINGILLIROSTRIS Bp. & Schleg. [W. 1903, p. 521; 1907, p. 101.]

Two examples, March 25, south coast, Caspian Sea.

♂. April 8, }
 ♂. April 28, } Elburz Mts. (north side).

“Not at all common and seldom seen throughout the journey.”—R. B. W.

CARPODACUS ERYTHRINUS (Pall.). [B. 250. W. 1907, p. 101.]

Four males, May 4 & 6, Elburz Mts. (north and south sides, alt. 6500 ft.).

“A few seen in the oak-scrub at from six to seven thousand feet, but they were uncommon and very shy and difficult to obtain, although the loud shrill whistle of the male, uttered from the top of a bush, at once attracts attention to the bird, even at a distance. They were breeding in May.”—R. B. W.

RHODOPECHYS SANGUINEA (Gould). [B. 252. W. 1907, p. 102.]

♂♂. April 30, Elburz Mts. (near Demavend, alt. 8000 ft.).

These specimens, as well as those of the last species, are of a more greyish pink and much less brilliant than are birds later on in the summer. The rami only of the feathers are pink while the radii are grey or white, and the wearing off of the grey radii makes the pink shew up brilliantly, exactly as it does in the Linnet.

SERINUS PUSILLUS (Pall.). [B. 250.]

♂♂♂♀. April 8, }
♂. April 21, } Elburz Mts.
♀. April 28, }

“Very plentiful in the lower non-afforested valleys of the north side of the mountains and seen up to 8000 feet. The birds were in large flocks near Aliabad in the Herhaz valley.”—R. B. W.

PYRRHULA PYRRHULA CASPICA Witherby, Bull. B. O. C. xxiii. p. 48.

♂. Feb. 21, Surdabend; ♂. Feb. 25, Alumdeh, south coast, Caspian Sea.

“Bill black; feet and iris dark brown. Only a few Bullfinches were seen. They were usually amongst the strips of box-wood near the shore.”—R. B. W.

As already stated (Bull. B. O. C. xxiii. p. 48) the under parts of this Bullfinch are brighter and redder (*i. e.* less

pink) than in any other form of *Pyrrhula*. The colouring of the upper side is of a purer and bluer grey than that of *P. p. pyrrhula*. In measurements they are slightly larger than *P. p. europæa* and considerably smaller than *P. p. pyrrhula* and *P. p. rossikowi*. The wing in one specimen measures 87 and in the other 84 mm.

COCCOTHRAUSTES COCCOTHRAUSTES. [*B. 254.]

♂ ♀. Feb. 18, } south coast, Caspian Sea.
♀. Feb. 19, }

“Bill light horn-coloured; feet pale flesh-coloured; iris light greyish brown. A good many Hawfinches were seen along the coast and they were extremely plentiful at one or two places, frequenting the mulberry plantations and alder and elm forest. A few were seen in the forest on the lower foot-hills. They seemed to have entirely disappeared by May. None were met with on the south side of the mountains.”—R. B. W.

I should have ventured to separate these Hawfinches as a distinct geographical form, but that Mr. Woosnam did not find them breeding, and the birds which he obtained appeared to be migrants from elsewhere.

As compared to typical birds the male is altogether paler, has no rufous tint on the upper side, and has the forehead whitish buff, while the upper tail-coverts are yellowish brown with no trace of chestnut, and the under side is paler. The females are slightly greyer and less brown on the head, with the forehead and upper tail-coverts conspicuously paler. The measurements of the wings are large, that of the male being 109 mm. and those of the females 106 and 104 mm. In coloration the birds are much like *C. c. japonicus*, but they have white wing-coverts not tipped with ashy and the measurements are larger. *C. c. humii* is easily distinguished by the yellowish-brown colour of its under side.

PASSER DOMESTICUS INDICUS Jard. & Selby. [B. 254. W. 1903, p. 523; 1907, p. 102.]

March and April, south coast, Caspian Sea.

PASSER HISPANIOLENSIS TRANSCASPICUS Tschusi. [W. 1907, p. 102.]

Passer salicarius (Vieill.). [B. 255. W. 1903, p. 523.]

A number of specimens were obtained in March and April, on the south coast of the Caspian Sea.

“The Spanish Sparrow was first met with at Meshed-i-Ser and afterwards was frequently seen, while in the country round Bandar Gez, Barfarush, and Armol it was numerous.”
R. B. W.

One specimen is a cream-coloured albino with only the faintest markings on the wing-coverts.

PASSER MONTANUS (L.). [*B. 255. W. 1907, p. 102.]

March and April, south coast, Caspian Sea.

“Tree-Sparrows were extremely local. In some districts they were more numerous than any other Sparrows, and then they would not be seen for several days’ march. We first saw them near Sari, while at Barfarush they were in complete possession of the town, so far as the Sparrow-world was concerned. We never saw them on the coast, but they were observed high up the mountains (7000 or 8000 feet). They had newly-hatched young at Barfarush on April 4th.”—
R. B. W.

PETRONIA PETRONIA INTERMEDIA Hartert. [W. 1907, p. 102.]

Petronia stulta (Scop.). [B. 255. W. 1903, p. 522.]

♀. April 11, Elburz Mts. (north side, alt. 8000 ft.).

♂. May 6, Elburz Mts. (near Tehran, alt. 6500 ft.)

EMBERIZA CITRINELLA ERYTHROGENYS Brehm.

(Cf. Hartert, Vög. pal. Fauna, p. 169.)

Emberiza citrinella L. [B. 257.]

♀. March 9, Meshed-i-Ser, south coast, Caspian Sea.

“Very few seen, and those only in the scrub-country near the coast, at the east end of the shore.”—R. B. W.

As compared to typical West European birds, the mantle is less brown, the edgings to the feathers being greyish

brown, the wing-coverts also are edged with greyish white instead of buff, and the yellow of the breast is paler. The wing measures 84 mm.

EMBERIZA MILIARIA Linn. [B. 257. W. 1903, p. 520 ; 1907, p. 103.]

March, south coast, Caspian Sea.

EMBERIZA CIA PAR Hartert, Vög. pal. Fauna, p. 184.

Two females, March 18, south coast, Caspian Sea.

Three males and one female, April, Elburz Mts. (north side, alt. 2000–8000 ft.).

“Common around Ferahabad in the middle of March, but not seen until then.”—R. B. W.

These examples belong to the paler and larger form of the Meadow-Bunting described by Dr. Hartert.

The wings measure :—males 90, 88, 86 mm. ; females 81 and 79 mm.

EMBERIZA BUCHANANI Blyth. [W. 1907, p. 103.]

Emberiza huttoni Blyth ; [B. 258].

♂. May 6, Elburz Mts. (near Tehran, alt. 9000 ft.).

EMBERIZA HORTULANA L. [B. 259. W. 1903, p. 520 ; 1907, p. 103.]

♂♂. April 20, Elburz Mts. (near Demavend, alt. 8000 ft.).

♀. May 15, Elburz Mts. (near Resht, alt. 500 ft.).

EMBERIZA MELANOCEPHALA Scop. [W. 1903, p. 520 ; 1907, p. 104.]

Euspiza melanocephala (Scop.) ; [B. 260].

♂. May 6, Elburz Mts. (near Tehran, alt. 6000 ft.).

“Not uncommon around Tehran and in the lower valleys on the south side of the mountains.”—R. B. W.

EMBERIZA SCHGENICLUS TSCHUSII Reiser & Almasy.

(Cf. Hartert, Vög. pal. Fauna, p. 198.)

Three males and three females, March 1–11, south coast, Caspian Sea.

The upper side of this form is greyer and less buff than

that of the typical race, the edgings of the feathers being greyish white instead of buff; the under side is of a purer white.

“These Buntings were found in thousands all along the coast in February and March; but by May, when we returned to the coast, not one was to be seen.”—R. B. W.

EMBERIZA PYRRHULOIDES PYRRHULOIDES Pall.

♀. March 16, Ferahabad, south coast, Caspian Sea.

“The only one seen.”—R. B. W.

PICA PICA BACTRIANA Bp.

Four males, March 10 and 12 and April 2, south coast, Caspian Sea.

“The Magpie is one of the commonest birds of the South Caspian coast. At Resht it frequented the dense reed-beds around the lagoons a great deal. It was seen also at the villages high up in the mountain-valleys.”—R. B. W.

The specimens no doubt belong to this form. They have conspicuous white rump-bands and the wing-feathers have only a very narrow band of black. Their wings are large, measuring:—205, 203, 195, and 193 mm.

CORVUS CORNIX SHARPII Oates. [W. 1903, p. 518; 1907, p. 105.]

Corvus cornix L.; [B. 262].

Two males, March 31, south coast, Caspian Sea.

“Numerous.”—R. B. W.

PYRRHOCORAX GRACULUS (L.). [B. 264. *W. 1903, p. 517.]

♀. April 11, Elburz Mts. (north side, alt. 8000 ft.).

GARRULUS GLANDARIUS HYRCANUS Blanf. [B. 265.]

Three males, Feb. 21 and March 28, south coast, Caspian Sea.

“Plentiful throughout the forest-country at the foot of the hills; a few were seen in the forest on the mountains as high up as about 6000 feet, but unfortunately none were obtained.”—R. B. W.

STURNUS VULGARIS CAUCASICUS LORENZ. [W. 1903, p. 519; 1907, p. 106.]

Sturnus vulgaris L.; [B. 266].

Two males, March 6 and 12, south coast, Caspian Sea.

"Plentiful at Meshed-i-Ser, but not very numerous in Mazandaran at the time of year we were there."—R. B. W.

PASTOR ROSEUS (L.). [*B. 267; W. 1907, p. 106.]

♂. May 20, south coast, Caspian Sea.

"Large flocks at the date of this specimen on the low-lying grass- and marsh-land near the coast at Resht."—R. B. W.

COLUMBA PALUMBUS L. [*B. 269. W. 1907, p. 107.]

Columba palumbus casiotis, nec Bp. [W. 1903, p. 567].

♂. March 18, south coast, Caspian Sea.

"Several large flocks of Wood-Pigeons were seen at Ferahabad and a few at other points along the coast. They were met with again in the oak forest on the hills at 4000 feet, but were not numerous."—R. B. W.

PHASIANUS PERSICUS SEVERTZ.

One male and three females, March 6–12, Meshed-i-Ser, south coast, Caspian Sea.

PHASIANUS TALISCHENSIS LORENZ.

♂. Feb. 16, Miandeh, south coast, Caspian Sea.

"Pheasants were found all along the coast in the swampy forest and bramble-thickets and in the drier pomegranate-scrub nearer the beach. In the mountains we heard of them as high as 2000 feet, and in some places they doubtless follow the forest up very much higher. They were nowhere plentiful and were always difficult birds to get, owing to the almost impenetrable thorn- and bramble-jungle which forms the undergrowth in nearly all the forest on the plain. These thickets, however, serve very effectively in lieu of gamekeepers to preserve the birds—the Persians themselves call them 'the guardians of Mazandaran.' Without them the Pheasant would soon be a very rare bird in the district, owing to the ceaseless persecution of the local 'shikarchis.' We noticed

that these Pheasants got up with much less noise than English birds, and that the cocks never uttered the least cackle when rising and were only very rarely heard to crow—and then very feebly—on going to roost. In February and March they were feeding largely on the dry seeds from the fallen pomegranates.”—R. B. W.

RALLUS AQUATICUS L. [B. 288. *W. 1903, p. 567.]

♂ ♂. Feb. 19 and 24, south coast, Caspian Sea.

“Plentiful in the swampy forest and along the numerous small streams and marshes.”—R. B. W.

LARUS MINUTUS.

Four males, Feb. 26 and March 4, south coast, Caspian Sea.

“To be seen all along the sandy coast of the Caspian as well as on the larger lagoons and marshes a little way inland; they did not, however, spend the night on the inland lagoons, but were to be seen late in the evening flying out to sea in small parties.”—R. B. W.

XXIII.—*On the Birds of Paraguay*.—Part III. By CHARLES CHUBB, F.Z.S., M.B.O.U., Zoological Department, British Museum*.

Family CONOPOPHAGIDÆ.

77. *CONOPOHAGA ANOMALA*.

Ceraphanes anomalus Bertoni, Aves Nuev. Paraguay, p. 115.

Conophaga lineata (nec Wied), Ihering, Revista Mus. Paulista, vi. p. 331.

a. ♂ ad. Sapucay, November 16, 1902.

b. ♂ ad. „ April 13, 1904.

Bill black above, cream-coloured below; tarsi and feet yellow, greenish at base; iris brown.

* Continued from above, p. 285.